

## ABSTRACT

An implantable electrode provided with a thin, porous, wettable polymeric covering. The electrode covering of the present invention tightly conforms to the external profile of an electrode, which minimizes air gaps and voids. The electrode covering is relatively thin, preferably less than 0.13 mm thick, and is treated to enhance rapid wetting by bodily fluids. The combination of minimal air gaps, tight conformance to the electrode, wettability and porosity of the thin covering, allows repeated, high energy electrical discharges to be transmitted without significant bubble formation, sparking or degradation of the covering. In addition, the electrode covering of the present invention has pore sizes tailored to minimize cellular ingrowth and tissue attachment thereby allowing a less traumatic removal of the electrode after implantation if extraction becomes necessary, for example due to infection or electrode dislodgment.